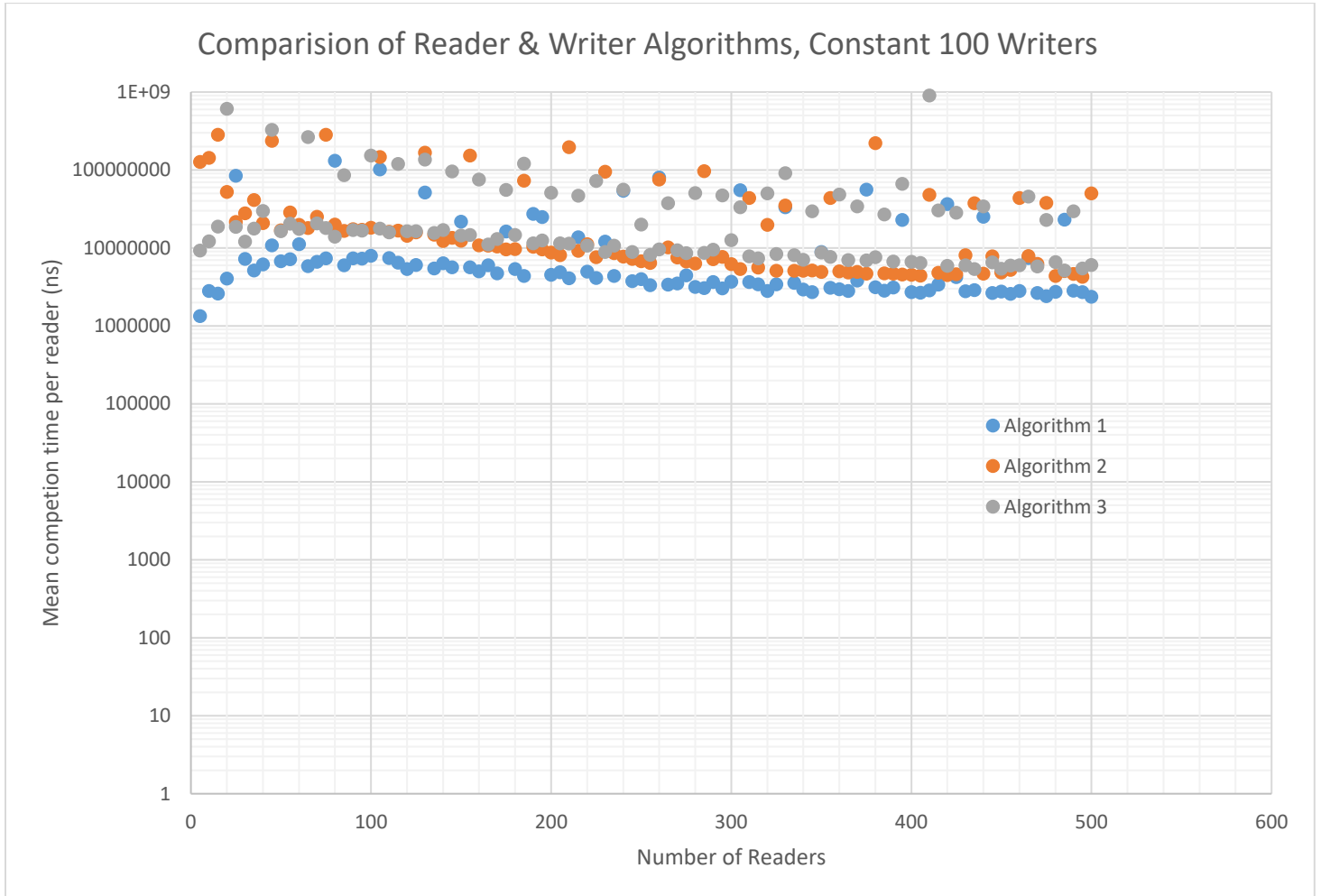


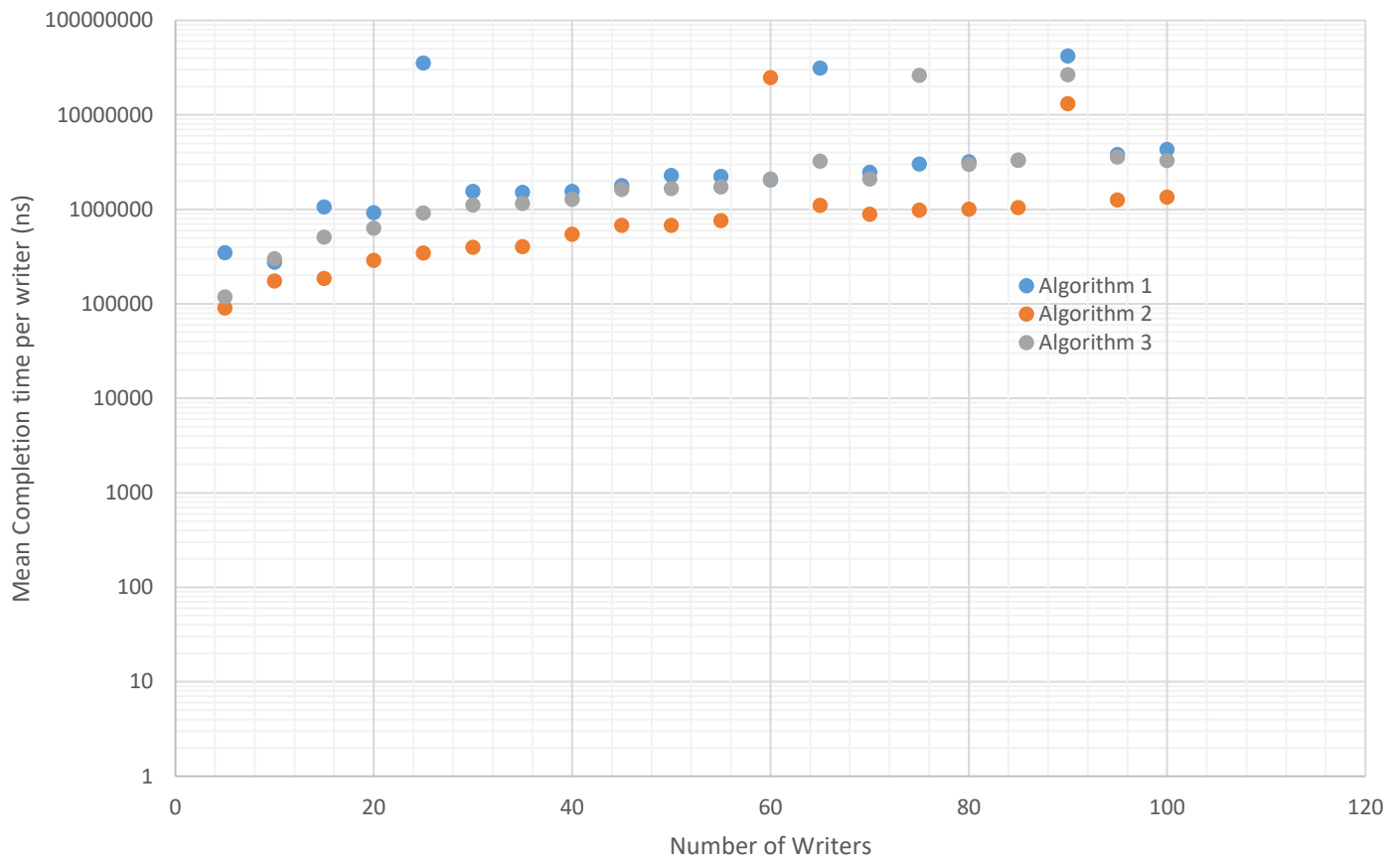
CPSC 457 – Assignment 5 – Report

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Comparison of Reader & Writer Algorithms, Constant 500 Readers



Summary

One of the most notable things about all 3 of these algorithms is how similar they all are in behavior, all 3 algorithms have nearly overlapping trends, there are however some distinct patterns that can be observed.

From Graph 1, where the number of readers is the independent variable, it is apparent that algorithm 1 results in the best performance for reader threads under our test conditions, followed by algorithm 2, then 3.

From Graph 2, where the number of writers is the independent variable, it is apparent that algorithm 2 results in the best performance for writer threads, under our test conditions. Followed by algorithm 3, and then 1.

In general, the writer threads increase linearly in completion time with respect to the number of writers, whereas readers tend to stay constant or even decrease in completion time with respect to the number of readers.

It is important to note that these results probably do not represent the actual performance of these algorithms in practical applications, and these results are insufficient for practically deciding which algorithm to use.